



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8**

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APR 28 2014

Ref: 8EPR-N

Michael Stiewig, Acting District Manager
Bureau of Land Management
Attn: Steve Rigby, Project Manager
Price BLM Field Office
125 South 600 West
Price, Utah 84501

Allen Rowley, Forest Supervisor
Manti-La Sal and Fishlake National Forests
Attn: Marianne Breeze Orton, Forest Environmental Coordinator
Fishlake National Forest
115 East 900 North
Richfield, Utah 84701

Re: Leasing and Underground Mining of the
Greens Hollow Federal Coal Lease Tract, Draft
Supplemental Environmental Impact Statement
CEQ # 20140068

Dear Messrs. Stiewig and Rowley:

The U.S. Environmental Protection Agency Region 8 has reviewed Draft Supplemental Environmental Impact Statement (SEIS) for the proposed leasing and underground mining of the Greens Hollow Federal Coal Lease Tract (Tract) prepared jointly by the U.S. Department of Agriculture Forest Service (USFS) and Bureau of Land Management (BLM), in cooperation with the Office of Surface Mining Reclamation and Enforcement. The Draft SEIS analyzes and discloses the potential environmental effects of offering the Tract for lease by BLM, and the potential effects of mining and surface use based on a Conceptual Mine Plan and Reasonably Foreseeable Surface Use Scenario. Our review was conducted in accordance with the EPA's responsibilities under section 102 of the National Environmental Policy Act (NEPA), and Section 309 of the Clean Air Act (CAA).

Project Description and Background

The project proposes leasing for competitive bid of the Tract that encompasses approximately 6,175 acres for production of federal coal reserves located on the Fishlake and Manti-La Sal National Forests (FLNF and MLNF, respectively) in Sanpete and Sevier Counties, Utah. The coal could be directly accessed from the south and east through an extension of underground workings in the SUFCO mine. According to the Draft SEIS, the Tract could also be accessed from other sites, including Muddy Creek Canyon on the north end of the Tract, which would require the development of new portals in adjacent undisturbed areas. The Conceptual Mine Plan scenario assumes that water discharge would continue from existing permitted discharge points. Potential surface uses include two ventilation shafts (one with

a fan), intake shafts, utility boreholes, a power transmission line, and associated road access. The Draft SEIS analyzes three alternatives which include the No Action Alternative (Alternative 1), the Proposed Action (Alternative 2), and Alternative 3 that was developed to be more protective of certain critical surface resources, such as perennial streams, from the effects of subsidence within the lease tract boundary.

The Proposed Action is driven by a Conceptual Mine Plan that assumes underground longwall mining techniques will be used, resulting in full extraction of the coal resource over the entire tract. Under this scenario, about 56.6 million tons of recoverable coal reserves, representing approximately 8.8 years of mining, would be offered for lease. The Proposed Action includes all special coal lease stipulations from the MLNF Forest Plan with the exception of Stipulation #9 that includes protections of certain surface resources such as escarpments, surface structures, and perennial streams from adverse effects of underground coal mine subsidence. Therefore, the Proposed Action is intended to represent a maximum impact scenario for subsidence.

Alternative 3 differs in that site-specific exceptions to Stipulation #9 authorizations would not be considered for areas identified for special protection, including perennial streams where surface flow could be lost to subsidence-induced cracking of Castlegate Sandstone or where escarpments could fail. The Conceptual Mine Plan assumes full extraction mining could occur over most of the tract; however, non-subsidence mining (*i.e.*, room-and-pillar) would occur under areas where there are concerns related to subsidence of land surface and subsequent resource impacts. Based on this information, Alternative 3 is more environmentally protective compared to the Proposed Action. Under this alternative, about 55.7 million tons of recoverable coal reserves, representing approximately 8.7 years of mining, would be offered for lease.

Comments and Recommendations

Our comments on the Draft SEIS focus on avoiding impacts to air quality and water resources. Our enclosed *Detailed Comments* include additional concerns with the air quality analysis and potential impacts.

1) Air Quality

Upon review of the Draft SEIS, we are providing the following comments and recommendations related to compliance with the National Ambient Air Quality Standards (NAAQS). In addition, please refer to our enclosed air quality analysis detailed comments.

NAAQS Compliance – Particulate Matter (PM₁₀)

The Draft SEIS presents data generated for the Muddy Creek 2004 analysis in preparation of an EIS for that tract. Based on the projected impacts for PM₁₀, which range from 91% - 96% of the 24-hour PM₁₀ NAAQS, we are concerned that the Greens Hollow project could have similar or greater impacts particularly because the Draft SEIS indicates that the current truck traffic to haul coal to either an end user or a central loading point for rail loading would be extended with the proposed project. However, mitigation measures implemented by UDEQ for the SUFCO mine would alleviate these concerns. We recommend additional information be provided within the Final SEIS air impact analysis to assure that the NAAQS threshold is not exceeded. Our enclosed Detailed Comments recommend specific measures that would reduce PM₁₀ impacts from the construction and operation of the Greens Hollow tract through opacity limitation and visual monitoring as well as mitigation. Examples of current mitigation

options applicable to the SUFCO mine that would be appropriate to be applied to the Greens Hollow Tract to reduce particulate matter are included in the Detailed Comments, including dust suppression treatments that would maintain the surface material in a damp/moist condition. As stated in our comments on the previous 2009 Draft EIS for the Greens Hollow tract, the 2004 Muddy Creek analysis may not fully capture the impacts of development and operation of the Greens Hollow tract, and the additional analyses we suggested have not been included in this Draft SEIS. Therefore, the information and mitigation outlined in the enclosed Detailed Comments may provide more assurance that there will not be significant impacts to the 24-hour PM₁₀ NAAQS.

Greenhouse Gas Emissions and Climate Change

Although Chapter 3 includes pounds of greenhouse gas emissions (GHG) per ton of coal burned at the Hunter Power Plant, the Draft SEIS lacks a clear emission calculation of GHGs for the construction and operation of the Green Hollow coal tract as well as a clear calculation for the total GHGs that could be attributed to the recoverable coal reserves to be mined and combusted from the tract. We recommend the FSEIS present these calculations for CO₂, CH₄, and N₂O, as well as compute CO₂ equivalent emissions (CO_{2e}). When doing the calculation of CO_{2e}, the correct global warming potential for CH₄ and N₂O are 21 and 310 respectively (the DSEIS cites factors of 25 and 298). We recommend that a comparison then be made to translate these emissions into equivalencies that are more easily understood by the public (e.g., annual GHG emissions from x number of motor vehicles, see <https://www.epa.gov/RDEE/energy-resources/calculator.html>).

We recommend that the Final SEIS assess and identify measures to reduce GHG emissions associated with the Project, including alternatives and/or potential requirements to mitigate emissions. We also recommend that the Final SEIS describe any existing Regional or State climate change plans or goals that cover the project area.

Lastly, we recommend that the Final SEIS include a summary discussion of ongoing and projected regional climate change (*i.e.*, trends in temperature and precipitation in the project area) in the “affected environment” section of the Draft SEIS. Projections of future conditions should be based on U.S. Global Change Research Program assessments, IPCC, or peer reviewed literature. This would enable the Final SEIS to identify potential impacts that may be exacerbated by climate change. The discussion currently presented focuses on global sources of GHGs and major sectors emitting GHGs, but does not discuss impacts that may result from global climate change such as increased average temperatures, increased drought and water scarcity, loss of biodiversity, etc.

2) *Water Resources*

The EPA notes that Alternative 3 is designed to avoid some of the impacts expected under the Proposed Action, including impacts to springs and perennial drainages/flows and any associated riparian habitat, wetlands and aquatic species. The risk of long-term loss of water from perennial stream may be reduced, but not eliminated, by excluding portions of the analysis area from subsidence mining as proposed in Alternative 3.

The Draft SEIS offers some proactive BMPs, stipulations and design criteria to reduce the potential for water resource impacts, such as 200-foot buffers on either side of the stream centerline, which exceeds recommendations for 100-foot stream buffers included in the Surface Mining Control and Reclamation Act. The Draft SEIS also includes reactive special stipulations and design criteria to address potential instances where the protection measures prove unsuccessful in preventing long-term water resource

impacts (*e.g.*, transporting water by pipeline or truck following loss of flow). The EPA understands that without a specific mine plan, it is not clear if there are other additional opportunities for mitigation, and we recommend that when the mine plan is in place, the lead agencies identify and implement any additional opportunities to protect these valuable aquatic resources.

The Draft SEIS references a mitigation plan that was finalized by Canyon Fuel Company and subsequently approved in 2013. If that plan reflects knowledge gained from previous unsuccessful efforts to prevent and mitigate impacts to aquatic resources, then the EPA recommends that relevant components of the mitigation plan be included in the Final SEIS if there are potentially applicable measures for the Greens Hollow Tract. The State mining permit may also have additional mitigation or reclamation measures. Additionally, we recommend consideration of including the 2008 Greens Hollow Water Resources Technical Report as part of the Final SEIS appendices if the report contains valuable information that would help inform decisions on proposed mitigation for potential impacts.

The EPA's Rating

Based on our review, the EPA is rating the two action alternatives in the Draft EIS as "Environmental Concerns – Insufficient Information" (EC-2). The "EC" rating means that the EPA's review has identified potential impacts that should be avoided in order to fully protect the environment. The "2" rating means that the Draft EIS does not contain sufficient information for the EPA to fully assess environmental impacts. A description of the EPA's rating system can be found at: <http://www.epa.gov/compliance/nepa/comments/ratings.html>.

We appreciate the opportunity to participate in the review of this project, and we are committed to working with you in the coming months. If we may provide further explanation of our comments during this stage of your planning process, please contact me at 303-312-6704, or your staff may contact Melanie Wasco, Lead NEPA Reviewer, at 303-312-6540.

Sincerely,



Philip S. Strobel
Acting Director
NEPA Compliance and Review Program
Office of Ecosystems Protection and Remediation

Enclosure

EPA Region 8 Detailed Comments
Greens Hollow Federal Coal Lease Tract Draft SEIS

Air Quality Analysis

NAAQS Compliance

Because the UDEQ Approval Order for the SUFCO Mine (DAQE-AN0106650013-11 permit for Canyon Fuel Company LLC) is likely to be similar to the forthcoming Order for this mine, it may be informative to include it as an appendix to the Final SEIS. This Order includes specific limitations with regard to opacity from fugitive dust with methods for determining compliance as well as set requirements to mitigate fugitive dust emissions that we recommend be included in the Final SEIS. If these provisions are implemented for the Greens Hollow project, we are comfortable that the PM₁₀ emissions will be consistent with the NAAQS. These provisions include:

II.B.1.a - Visible emissions from the following emission points shall not exceed the following values:

- A. All crushers - 15% opacity*
- B. All screens - 10% opacity*
- C. All conveyor transfer points - 10%*
- D. Diesel engine - 20% opacity*
- E. Conveyor drop points - 20% opacity*
- F. All other points - 20%*

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9. For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9. [R307-401-8]

II.B.1.c - The facility shall comply with all applicable requirements for Fugitive Emissions and Fugitive Dust sources. [R307-205]

II.B.1.d - All unpaved roads and other unpaved operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated to control fugitive dust. Treatment shall be of sufficient frequency and quantity to maintain the surface material in a damp/moist condition or unless it is below freezing. Records of water and/or chemical treatment shall be kept for all periods when the plant is in operation. The records shall include the following items:

- A. Date*
 - B. Number of treatments made, dilution ratio, and quantity*
 - C. Rainfall received, if any, and approximate amount*
 - D. Time of day treatments were made*
 - E. Records of temperature if the temperature is below freezing.*
- [R307-401-8]*

II.B.1.e - Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than half vehicle length behind the vehicle and not less than half the height of the vehicle. [R307-201]

Since Condition II.B.1.c references Utah regulation R307-205, we recommend this regulation be summarized as it is applicable to mines. The following are the applicable requirements for this regulation that apply to the SUFCO mine and would apply to any mining conducted for the Greens Hollow tract:

R307-205-7. Mining Activities.

- (1) Fugitive dust, construction activities, and roadways associated with mining activities are regulated under the provisions of R307-205-7 and not by R307-205-5 and 6.*
- (2) Any person who owns or operates a mining operation shall minimize fugitive dust as an integral part of site preparation, mining activities, and reclamation operations.*
- (3) The fugitive dust control measures to be used may include:*
 - (a) periodic watering of unpaved roads,*
 - (b) chemical stabilization of unpaved roads,*
 - (c) paving of roads,*
 - (d) prompt removal of coal, rock minerals, soil, and other dust-forming debris from roads and frequent scraping and compaction of unpaved roads to stabilize the road surface,*
 - (e) restricting the speed of vehicles in and around the mining operation,*
 - (f) revegetating, mulching, or otherwise stabilizing the surface of all areas adjoining roads that are a source of fugitive dust,*
 - (g) restricting the travel of vehicles on other than established roads,*
 - (h) enclosing, covering, watering, or otherwise treating loaded haul trucks and railroad cars, to minimize loss of material to wind and spillage,*
 - (i) substitution of conveyor systems for haul trucks and covering of conveyor systems when conveyed loads are subject to wind erosion,*
 - (j) minimizing the area of disturbed land,*
 - (k) prompt revegetation of regraded lands,*
 - (l) planting of special windbreak vegetation at critical points in the permit area,*
 - (m) control of dust from drilling, using water sprays, hoods, dust collectors or other controls approved by the director,*
 - (n) restricting the areas to be blasted at any one time,*
 - (o) reducing the period of time between initially disturbing the soil and revegetating or other surface stabilization,*
 - (p) restricting fugitive dust at spoil and coal transfer and loading points,*
 - (q) control of dust from storage piles through use of enclosures, covers, or stabilization and other equivalent methods or techniques as approved by the director, or*
 - (r) other techniques as determined necessary by the director.*